

Department of Defense
Armed Forces Health Surveillance Branch
Global Zika Virus Surveillance Summary
(17 AUG 2016)



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For questions or comments, please contact:

dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil



DEPARTMENT OF DEFENSE (AFHSB)

Global Zika Virus Surveillance Summary #31

17 AUG 2016 (next report 24 AUG 2016)



DoD SURVEILLANCE: As of **17 AUG**, there are **75 (+6)** confirmed Zika virus (ZIKV) disease cases in Military Health System beneficiaries (see table for details), including one case in a pregnant Service member and **one case in a dependent**.

As per the AFHSB [updated guidance](#) for detecting and reporting DoD cases of ZIKV disease, confirmed and probable cases should be reported in DRSi as “Any Other Unusual Condition Not Listed,” with “Zika” entered in the comment field along with pertinent travel history and pregnancy status.

The CDC Zika IgM MAC-ELISA and CDC Zika Triplex rRT-PCR are available under an [Emergency Use Authorization \(EUA\)](#) at DoD laboratories (see map on [Slide 3](#)).

Strategy for Control of Zika Virus Transmitting Mosquitoes on Military Installations is available from the Armed Forces Pest Management Board.

CASE REPORT: From 1 MAY 2015 to **17 AUG** 2016, confirmed autochthonous vector-borne transmission of ZIKV has been reported in **47 (+1, Bahamas)** countries and territories in the Western Hemisphere, eight in PACOM, and two in AFRICOM. CDC has issued Alert Level 2, Practice Enhanced Precautions travel notices for **54 (+1, Cayman Islands)** of these [areas](#) and for travelers to the [2016 Summer Olympics and Paralympics](#). According to CDC, locations above 6,500 feet elevation in these countries and territories present minimal transmission risk. Past vector-borne outbreaks have been reported from other areas of Africa, Southeast Asia, and the Pacific Islands, where sporadic transmission may continue to occur. Eleven countries have reported person-to-person transmission, most likely through sexual contact.

On 26 JUL, following a significant decrease in the number of newly detected cases, the Colombia MOH declared an end to the Zika epidemic in that country and lifted its recommendation that women delay pregnancy because of the virus. **According to PAHO on 11 AUG, all Caribbean and North, Central, and South American countries and territories reporting ZIKV transmission for longer than the last four weeks were reporting a decreasing trend in cases, except for Saint Barthelemy and Saint Martin.**

As of **10 AUG**, CDC (ArboNet) reported **1,933 (+131)** travel-related cases, **22 (+6)** sexually transmitted cases, six locally acquired mosquito cases, and one laboratory acquired case in **47 (+1, Idaho)** states and the District of Columbia since MAY 2015.

As of **16 AUG**, FL health officials have reported **30 (+9)** ZIKV infections that were likely acquired through local mosquito transmission (as of 9 AUG, six met the CDC definition of a Zika case). **TX reported a Zika case linked to the Miami-Dade outbreak on 15 AUG.** These are the only cases likely resulting from local mosquito transmission in the 50 U.S. states and the District of Columbia. The FL DOH believes active transmission is confined to a one-square mile area of Miami-Dade County, just north of downtown Miami. However, the DOH is investigating four areas in Miami-Dade and Palm Beach Counties where local transmission of ZIKV may have occurred. On 1 AUG, CDC issued a [health advisory](#) for pregnant women and women of reproductive age traveling to or living in the affected area. As of 3 AUG, all county health departments in Florida are offering free Zika risk assessments and testing to pregnant women.

CDC has completed its investigation of a ZIKV infection in a caretaker of a fatal travel-related Zika case in Utah. Sexual and vector transmission were ruled out; it is suspected that transmission occurred via another bodily fluid while caring for the index case.

Text updated from the previous report will be printed in red; items in (+xx) represent the change in number from the previous AFHSB summary (10 AUG 2016).

All information has been verified unless noted otherwise. Additional sources include: Pacific Public Health Surveillance Network.

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Demographics for all confirmed Zika cases in Military Health System Beneficiaries as of 17 AUG 2016 (N = 75 confirmed cases)			
Demographic		N	%
Service	Army	37	49.3%
	Air Force	11	14.7%
	Navy	6	8.0%
	Marine Corps	4	5.3%
	Coast Guard	17	22.7%
Status <small>*includes Reserve Component</small>	Service Member*	55	73.3%
	Dependent	12	16.0%
	Retiree	8	10.7%
Age	0-20	3	4.0%
	21-35	32	42.7%
	36-50	25	33.3%
	51+	10	13.3%
	Not Reported	5	6.7%
Gender	Female	21	28.0%
	Male	54	72.0%



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CASE REPORT (cont): As of **28 JUL**, Puerto Rico DOH reported **10,690 (+1,924)** confirmed ZIKV disease cases (2 deaths), with **1,035 (+134)** cases in pregnant women. The U.S. Virgin Islands (USVI) DOH reported 79 confirmed cases to PAHO as of **11 AUG**. According to CDC on **12 AUG**, American Samoa has reported 44 confirmed cases, including six cases in pregnant women and one case of fetal demise. As of **4 AUG**, the CDC's U.S. [pregnancy registry](#) has recorded **510 (+34)** pregnant women with laboratory evidence of a ZIKV infection in the 50 states and the District of Columbia; among these pregnancies, there have been **16 (+1)** infants born with birth defects and **five (-1)** fetal deaths due to birth defects. CDC is tracking **521 (+28)** additional pregnant women in the U.S. territories, with one fetal death due to birth defects.

As of 8 AUG, Gulf Coast Regional Blood Banks in Texas have tested 34,383 units for ZIKV, and none were positive. The American Red Cross has tested 32,700 units in CONUS; none were positive. In Puerto Rico as of 17 JUL, 1.0 percent of donors have screened positive for ZIKV. OneBlood continues to screen all donations in Miami-Dade and Broward Counties; no positives were reported as of 10 AUG.

MICROCEPHALY: As of **11 AUG**, Brazil (**1,773 (+24)** cases), Cape Verde (11 cases), Colombia (22 cases), French Polynesia (8 cases), the Marshall Islands (1 case), Martinique (8 cases), El Salvador (**4 (+1)** cases), French Guiana (2 cases), Panama (5 cases), Puerto Rico (1 case), and Paraguay (2 cases) have reported microcephaly and other fetal malformations potentially associated with ZIKV infection or suggestive of a congenital infection. The U.S. (**21 (+2)**, **Canada (1)**, Spain (2), and Slovenia (1) have reported travel associated microcephaly cases. CDC has said, "a causal relationship exists between prenatal Zika virus infection and microcephaly and other serious brain anomalies."

GUILLAIN-BARRÉ SYNDROME: According to [WHO on 11 AUG](#), 16 countries (**15 (+1)**, **Grenada**) in the Western Hemisphere and French Polynesia) have reported Guillain-Barré syndrome (GBS) cases that may be associated with ZIKV. CDC reported **six (+1)** GBS cases linked to ZIKV in the continental U.S.; Puerto Rico reported **30 (+3)** cases.

USG RESPONSE: On 9 AUG, CDC published a slide presentation summarizing its [updated interim guidance for pregnant women and data on contraceptive use to decrease Zika-affected pregnancies](#). On 5 AUG, FDA issued its final [environmental assessment for genetically engineered \(GE\) mosquitoes](#), concluding that the use of GE *Aedes aegypti* mosquitoes will have no significant impact on the environment. On 1 AUG, CDC released [advice for people living in or traveling to Wynwood](#), the neighborhood in Miami, FL, with local transmission. On 31 JUL, CDC updated its [interim plan for response activities](#) that would occur after local ZIKV transmission has been identified in the continental United States and Hawaii. CDC released two guidance updates on 25 JUL, one for [health care providers caring for pregnant women with possible ZIKV exposure](#) and one on the [prevention of sexual transmission of ZIKV](#). Additional data, guidance, and information from CDC is available on its [ZIKV](#) web pages.

GLOBAL RESPONSE: WHO issued a revised [Strategic Response Plan](#) on 17 JUN that places a greater focus on preventing and managing medical complications caused by ZIKV infection. Following the third meeting of the [WHO Emergency Committee](#) concerning ZIKV and observed increases in neurological disorders and neonatal malformations on 14 JUN, WHO said that the clusters of microcephaly cases and other neurological disorders continue to constitute a Public Health Emergency of International Concern (PHEIC). The Committee said the risk of further international spread of ZIKV from the Olympic and Paralympic games is very low and reaffirmed its previous advice that there should be no general restrictions on travel and trade with countries, areas, and/or territories with ZIKV transmission. PAHO has created a [searchable database](#) of published primary research and protocols. For additional information, visit the [WHO](#) and [PAHO](#) Zika web pages.

MEDICAL COUNTERMEASURES: On 4 AUG, researchers from the Walter Reed Army Institute of Research (WRAIR) and Harvard University published a preclinical study in Science demonstrating the efficacy of a Zika purified inactivated virus (ZPIV) vaccine in rhesus monkeys. Results indicated complete protection from ZIKV with no detectable virus in blood, urine, or secretions; phase 1 clinical testing is expected to begin later this year. WRAIR is co-developing the vaccine with Sanofi Pasteur. On 26 JUL, Inovio Pharmaceuticals announced that it had started a phase I trial of its Zika DNA vaccine (GLS-5700). The trial will test safety, tolerability, and immunogenicity in 40 human volunteers.

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All information has been verified unless noted otherwise. Additional sources include: Sanofi Pasteur, Radio New Zealand, Brazil MOH, and Colombia MOH

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Emergency Use Authorization Zika Testing at DoD Laboratories



*Plaque-reduction neutralization test (PRNT)

As of 17 AUG 2016

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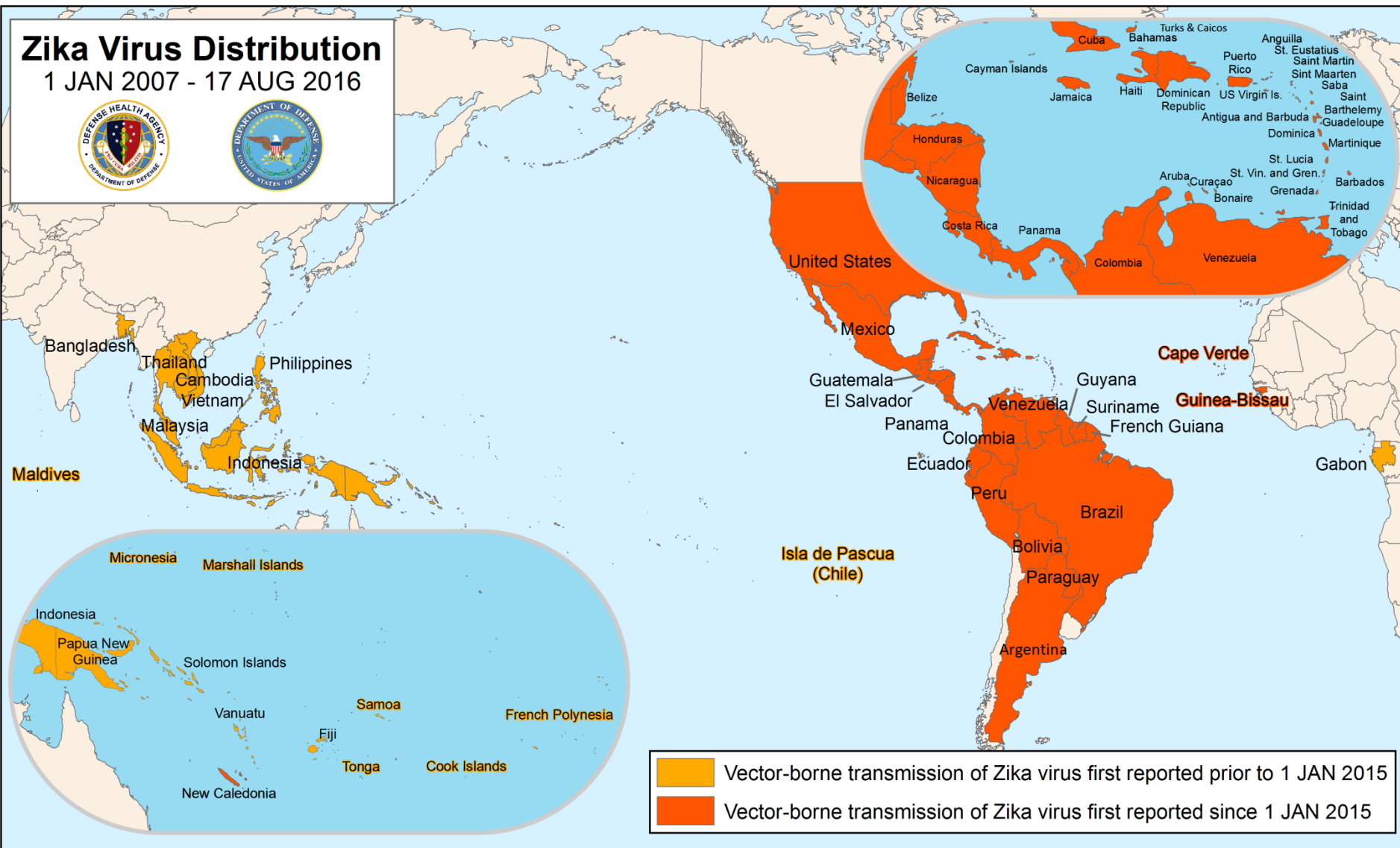
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Zika Virus Distribution

1 JAN 2007 - 17 AUG 2016



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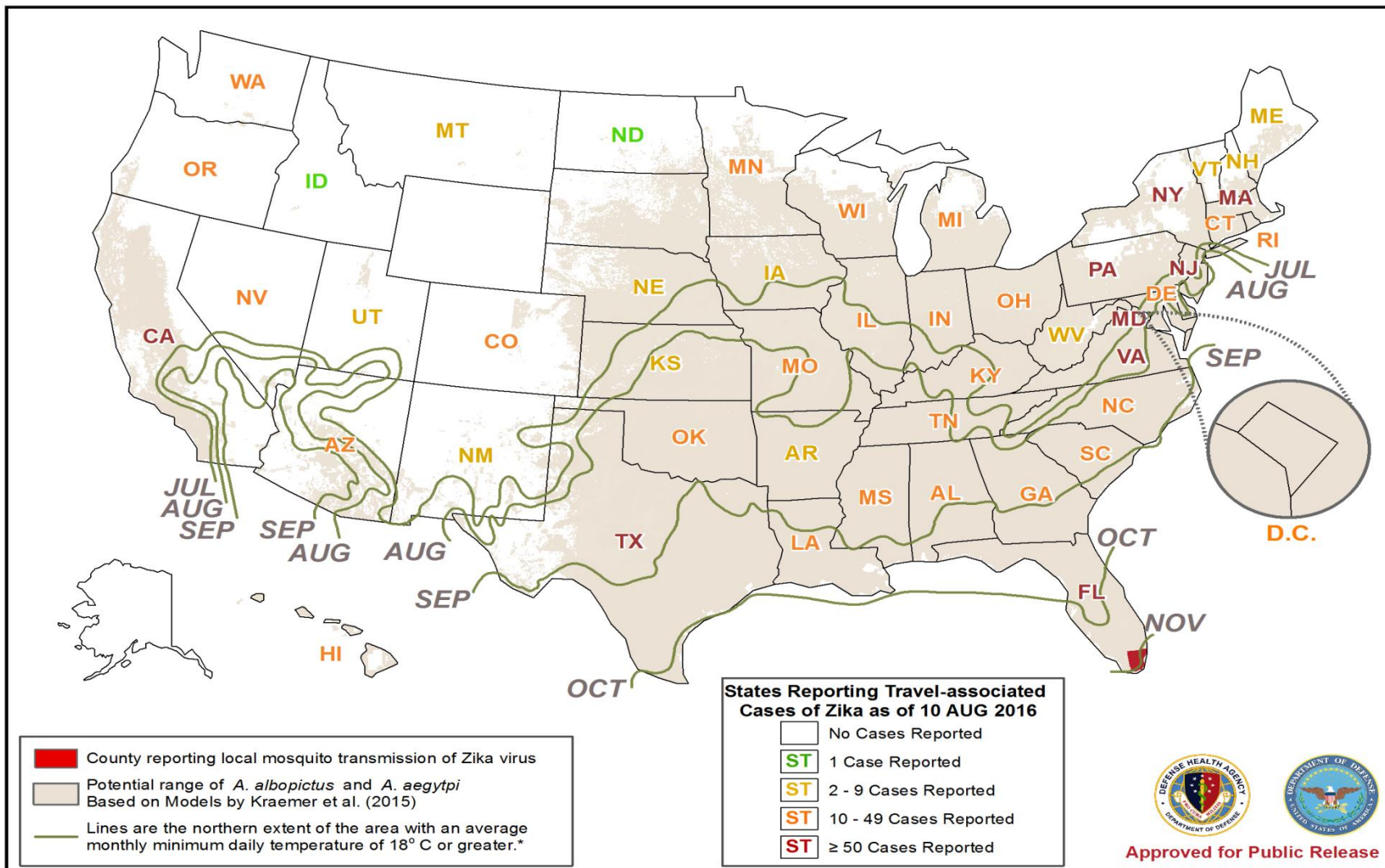
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Overlap of States Reporting Imported Zika Cases and the Estimated Range of Mosquito Vectors and Transmission Suitability

17AUG 2016



This version of the map shows that after JUL the northern extent begins to move southward.

Based on Sang et al, Predicting Unprecedented Dengue Outbreak Using Imported Cases and Climatic Factors in Guangzhou, 2014. PLoS Negl Trop Dis 9(5);e0003808.

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Western Hemisphere Countries[‡] and Territories with Autochthonous Transmission of Zika Virus: 01 JAN 2015 – 13 AUG 2016

	Confirmed	Suspected	Microcephaly Cases*	Reporting GBS [†]
Total	106,246	457,894	1,817	15 Countries/Territories

Country/Territory	Confirmed	Suspected	Microcephaly Cases*	Reporting GBS [†]
Anguilla	2	14		
Antigua & Barbuda	1	14		
Argentina	24	1,738		
Aruba	21	0		
Bahamas	1	0		
Barbados	20	540		
Belize	5	0		
Bolivia	126	0		
Bonaire, St. Eustatius, Saba	9	0		
Brazil	78,421	174,003	1,773**	Yes
Cayman Islands	2	0		
Colombia	8,682	92,319	22**	Yes
Costa Rica	351	905		
Cuba	3	0		
Curaçao	208	0		
Dominica	68	799		
Dominican Republic	273	5,034		Yes
Ecuador	1,777	922		
El Salvador	54	10,899	4	Yes
French Guiana	483	9,330	2	Yes
Grenada	7	12		Yes
Guadeloupe	379	26,520		Yes
Guatemala	416	2,133		

Country/Territory	Confirmed	Suspected	Microcephaly Cases*	Reporting GBS [†]
Guyana	6	0		
Haiti	5	2,125		Yes
Honduras	191	29,896		Yes
Jamaica	58	4,214		Yes
Martinique	12	34,310	8	Yes
Mexico	1,490	0		
Nicaragua	1,088	0		
Panama	295	1,262	5	Yes
Paraguay	10	275	2	
Peru	89	0		
Puerto Rico	8,766	0	1	Yes
Saint Barthelemy	61	370		
Saint Lucia	26	702		
Saint Martin	200	1,835		
Saint Vincent & the Grenadines	8	0		
Sint Maarten	49	0		
Suriname	697	2,700		Yes
Trinidad and Tobago	149	0		
Turks & Caicos	2	0		
U.S. Virgin Islands	79	472		
Venezuela	1,632	54,551		Yes

* Number of microcephaly and/or CNS malformation cases suggestive of congenital infections or potentially associated with ZIKV infection

** Brazil was investigating 3,062 suspected microcephaly cases as of 23 JUL; Colombia was investigating 225 suspected microcephaly cases as of 6 AUG.

† Reported increase in GBS cases associated with the introduction of ZIKV and/or GBS case(s) linked to ZIKV infection

‡ Excludes the U.S.; this data can be found elsewhere in this report.

All data was obtained from PAHO, Ministries of Health, and Departments of Health unless otherwise noted.

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